

REMARKS

As a preliminary matter, there are 13 claims pending in this application, but only claims 1-12 are addressed in the outstanding office action. Applicant requests that if claim 13 is rejected, the examiner consider the following remarks with respect to that rejection.

Claims 1, 3-6 and 9-12 stand rejected under § 103 on the basis of Kimlinger et al. '952 and Comerford et al. '413. Dependent claims 2 and 7-8 stand rejected under § 103 on the basis of Kimlinger, Comerford and Silberscharz. Applicant traverses these rejections because the cited references do not disclose or suggest, alone or in combination, the exclusion control unit and access control unit of independent claims 1, 9 and 10, or the exclusion access request and authentication request of independent claims 11 and 12.

Kimlinger et al. is relevant only for its disclosure of a plurality of application programs that access a "smart" card, and is not related to access management as to which application program is permitted access to the smart card. Kimlinger et al. is merely concerned with a versatile card-reader that conforms to multiple "smart" cards employing respectively different protocols.

According to the system of Kimlinger et al., when a card is read, a software application contained in the system automatically converts generic card access instruction commands into native commands of a card-reader, and passes them to the card-reader so as to increase versatility of the card-reader. Kimlinger et al. does not address access management in the manner of the present invention.

Applicant disagrees with the examiner's assertion that Comerford et al. describes exclusive-access control. Comerford et al. is concerned with copy protection, inhibiting execution of a certain process once a pre-assigned conditional figure such as a number of allowable execution times is exceeded. Therefore, Comerford et al. is clearly distinguishable from the feature of the present invention, in which the exclusion control unit controls accesses of a plurality of applications to a smart-card.

Comerford et al. is concerned with copy protection of an application program stored on a magnetic storage medium. The invention disclosed in Comerford et al. is a development of the copy-protection technology disclosed in a preceding application (USPN 927,628, filed January 5, 1986). The parent application is concerned with a system which allows a host to execute an application program only when a Right-to-Execute is held within a coprocessor equipped with a non-volatile memory, wherein the Right-to-Execute is an object existing separately from the application program. Comerford et al. describes a concrete treatment for the Right-to-Execute, such as transfer of this Right-to-Execute.

The examiner asserts that Comerford et al. describes associating some conditions to this Right-to-Execute, in particular, about recording, together with the Right-to-Execute, conditional types of information such as an expiry date of the right to execute the application program, an allowable number of times of executing the application program into the coprocessor, and erasing the Right-to-Execute from the coprocessor to inhibit use of the application program once any of these condition figures is exceeded. Applicant responds that Comerford et al. describes adopting password-based authentication in place of or in

combination with the conditional figures such as the expiry date and the allowable number of execution times, too.

The examiner says the control described in Comerford et al. and exercised in a manner related to the number of execution times is comparable to the exclusion control associated with the present invention (see the last paragraph on p. 2 of the office action). Applicant disagrees with the examiner, and contends that the program that makes access to a token (hardware cartridge 30) or a disk 16 (see Fig. 1), which the examiner equates with the smart card of the present invention, is not the application program. It is the control program of the system, which Comerford et al. employs for implementing the subject control. As only the control program accesses the token and the disk 16, “a plurality of” application programs do not access them. Therefore, in Comerford et al. it is not required to exercise exclusion control.

Silberscharz (Operating System Concepts, Fifth Edition) merely describes employing an FCFS (first-come-first-served) strategy for suspending and resuming processes. Silberscharz has nothing in common with the present invention except for this FCFS approach. Accordingly, withdrawal of these rejections is respectfully requested.

For the foregoing reasons, applicant believes that this case is in condition for allowance, which is respectfully requested. The examiner should call applicant's attorney if an interview would expedite prosecution.

Respectfully submitted,

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